

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
NORTHWESTERN DIVISION**

Diana Olson, on behalf of herself and her)	ORDER ON MOTIONS IN LIMINE
children as heirs at law of Richard Olson,)	(EXPERT WITNESSES)
deceased; and Diana Olson as Personal)	
Representative of the Estate of Richard)	
Olson,)	
))	
Plaintiff,))	
vs.))	
Ford Motor Company, a Corporation,))	Case No. 4:04-cv-102
Defendant.))	

I. BACKGROUND

On January 6, 2006, the defendant, Ford Motor Company, filed several motions in limine seeking to exclude the testimony of expert witnesses James Grinolds, Sam Sero, and Trooper Brad Smith (Docket Nos. 74, 76, and 81). Grinolds was disclosed as an accident reconstruction expert. Sero is a “forensic engineer,” and Trooper Smith is a North Dakota Highway Patrol officer who made certain vehicle speed calculations prior to impact. On January 9, 2006, the plaintiff filed motions in limine to exclude the testimony of two expert witnesses retained by Ford Motor Company – Mark Hoffman and Charles Adams (Docket Nos. 94 and 95). Hoffman and Adams are in-house Ford employees/engineers. Both parties essentially contend that the testimony of the expert witnesses does not meet the Daubert standard for reliability. This case is scheduled for a jury trial to commence on February 6, 2006, in Minot, North Dakota.

II. LEGAL DISCUSSION

Rule 702 of the Federal Rules of Evidence sets forth the standard for expert testimony and provides as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. Rule 702 requires the trial judge to act as a “gatekeeper” and admit expert testimony only if it is relevant and reliable. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589 (1993). In Daubert, the Supreme Court charged trial courts with the responsibility of screening such testimony for reliability by assessing the expert’s reasoning and methodology. Peitzmeier v. Hennessy Indus., Inc., 97 F.3d 293, 296 (8th Cir. 1996). The trial court is granted broad discretion in its determination of reliability. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 142 (1999). However, the gatekeeper role should not invade the province of the jury whose job it is to decide issues of credibility and to determine the weight to be accorded such evidence. See Arkwright Mut. Ins. Co. v. Gwinner Oil Co., 125 F.3d 1176, 1183 (8th Cir. 1997). Expert testimony should be admitted if it is based on sufficient facts, it “is the product of reliable principles and methods,” and “the witness has applied the principles and methods reliably to the facts of the case.” Fed. R. Evid. 702; see General Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997).

The Eighth Circuit has set forth three prerequisites that must be met in order for expert testimony to be admitted under Rule 702.

First, evidence based on scientific, technical, or other specialized knowledge must be useful to the finder of fact in deciding the ultimate issue of fact. This is the

basic rule of relevancy. Second, the proposed witness must be qualified to assist the finder of fact. Third, “the proposed evidence must be reliable or trustworthy in an evidentiary sense, so that, if the finder of fact accepts it as true, it provides the assistance the finder of fact requires . . .”

Lauzon v. Senco Products, Inc., 270 F.3d 681, 686 (8th Cir. 2001) (quoting 4 Jack B. Weinstein & Margaret A. Berger, Weinstein's Federal Evidence § 702.02[3] (2001)).

In the well-known case of Daubert v. Merrell Dow Pharmaceuticals Inc, 509 U.S. 579 (1993), the United States Supreme Court held that the “general acceptance” standard articulated in Frye was “not a necessary precondition to the admissibility of scientific evidence under the Federal Rules of Evidence, but the Rules of Evidence – especially Rule 702 – do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” 509 U.S. 579, 597. The Supreme Court has also held that the principles set forth in Daubert apply to all expert testimony. Kuhmo Tire Co. Ltd. v. Carmichael, 526 U.S. 137 (1999) (“We conclude that Daubert’s general holding – setting forth the trial judge’s general ‘gatekeeping’ obligation – applies not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.”); accord Jaurequi v. Cater Manufacturing Co. Inc., 173 F.3d 1076, 1082 (8th Cir. 1999).

The motions, briefs, responsive pleadings, exhibits, and depositions offered in support of each parties’ respective positions, are voluminous. The Court will address each of the motions.

A. JAMES GRINOLDS

James Grinolds is a private investigator retained by the plaintiff to, among other things, inspect the accident site, the vehicle, and offer opinions in the area of accident reconstruction. Ford Motor has moved in limine to exclude the expert opinions of Grinolds at trial.

On January 23, 2006, the plaintiff filed a response to the motion in limine (Docket No. 122). In that response, the plaintiff states that Grinolds will not offer opinions concerning Ford's speed control system being defectively designed, nor any opinions as to Olson's level of intoxication the evening of the accident. However, the plaintiff does intend to offer Grinolds' opinions as to the physical evidence disclosed during his investigation and how such physical evidence relates to the cause of the fatal accident.

Ford Motor Company argues that Grinolds must be precluded from offering any opinions about speeds, distances, actions taken by Olson, or any other opinion about how or why the accident happened because Grinolds is not qualified as an accident reconstruction expert. The plaintiff contends that Ford Motor directly contradicts itself because in Smith v. Ford Motor Company, 882 F. Supp. 770, 773 (N.D. Ind. 1995), Grinolds was offered by the plaintiff as an expert in accident reconstruction and Ford conceded he was an expert in its memorandum to the federal court:

FN2. The initial inquiry, whether Grinolds is qualified to render such opinions, is not at issue in this case. As mentioned earlier, see supra note 1, even Ford concedes that Grinolds may be qualified to offer opinions concerning the origin and cause of automobile accidents and fires and does not contest this point.

882 F. Supp. 773.

The plaintiff contends that under the principle of judicial estoppel, Ford Motor should not be permitted to argue one thing in one federal court and then come into another federal court and take a diametrically opposite position. The plaintiff contends that unlike equitable estoppel, which is designed to ensure fairness in the relationship between the parties, judicial estoppel is meant to protect the judicial system. The doctrine seeks to preserve the sanctity of the oath by demanding truth and consistency in sworn positions. Second, the doctrine seeks to preserve judicial integrity by avoiding the risk of inconsistent results in two proceedings. Bates v. Long Island Railroad, 997

F.2d 1028, 1037 (2d Cir. 1993). The doctrine of judicial estoppel serves the purpose of protecting the integrity of the courts by preventing the system from being manipulated by “chameleonic litigants.” Blanton v. Inco Alloys International, Inc., 108 F.3d 104, 108 (6th Cir. 1997). Applying the principle to the present case, the plaintiff contends that Ford Motor should be bound by its earlier concession, made in a memorandum filed with the federal court, and applying directly to Grinolds’ qualifications to give accident investigation and reconstruction testimony.

The plaintiff further contends that James Grinolds is a certified, licensed, private investigator with training and certifications in accident reconstruction at Northwestern University, generally considered to be one of the premier accident investigation and reconstruction course offered in the United States. Grinolds also received training at Northwestern University in at-scene investigation and technical accident investigation. He also received training in traffic accident reconstruction at the Institute of Police Technology and Management at the University of North Florida and in vehicle dynamics at Northwestern.

In this case, Grinolds has opined that the decedent made extensive efforts to brake prior to the crash. Grinolds said that he believes Richard Olson applied the brakes extremely hard and actually bent the brake pedal. Grinolds took photographs of the brake pedal. In addition, Grinolds has opined that the 1998 Ford Explorer crashed because of a “mechanical failure” due to the vehicle’s throttle being stuck wide open. Grinolds admittedly has no background, training, education, or work experience in the design of motor vehicles, and particularly the design of a speed control or cruise control system such as that utilized in a Ford Explorer. Grinolds’ background and experience is primarily in the area of fire and accident investigations and accident reconstruction.

In the present case, the plaintiff states that Grinolds was hired by the decedent's family to

investigate the accident. His methodology included (1) inspecting the Olson vehicle; (2) inspecting the brake lamps; (3) checking the computer codes ("black box") to see if the on-board computer could provide any accident data; (4) conducting a second inspection; (5) obtaining a copy of the accident report from the Sheriff's Department; (6) interviewing people known to be at the Minot Country Club on the evening of the accident; (7) considering the reports of alcohol consumption, spoke with Coroner Smith regarding the possible contamination of the vitreous humor samples; (8) conducted an Internet search of possible defects relating to cruise control systems; (9) investigating the repair history of the Olson vehicle; (10) measuring distances and videotaped the scene at the Minot Country Club; (11) attending vehicle inspections conducted by other experts; and (12) writing reports recording his findings and opinions.

In conducting an accident investigation, Grinolds found physical evidence to arguably support his opinion that Olson had engaged in hard-braking, consistent with trying to regain control of the Ford Explorer against an open throttle. The physical evidence includes the distance the vehicle traveled prior to impact, the direction of Olson's steering input, a bent brake pedal, a distorted rubber foot pad which had been torn from the brakepedal, brake lamp filament evidence, and the bent-back condition of Olson's seatback, consistent with a driver's "standing on the brakes" and pressing his shoulders against the seatback.

The plaintiff summarizes the following facts that Grinolds has found to be material and supportive of his opinions:

- 1) Evidence from the vehicle.
 - A. brake light bulb filaments.
 - B. brake pedal position.
 - C. brake pedal pd.
 - D. driver's seat back position.

- 2) Evidence from the road.
 - A. the posted speed limit.
 - B. the yaw mark prior to the collision.
 - C. vehicle was steered part way through curve prior to the collision.
- 3) Evidence from witnesses.
 - A. all interviewed said he was not intoxicated.
 - B. law enforcement at the scene noted no smell of alcohol.
 - C. no one saw him drinking heavily.
- 4) Other evidence.
 - A. the notation of "fix cruise" on purchase agreement papers.
 - B. the prior throttle related incident.
 - C. Westlie Motor comments and throttle body replacement.
 - D. Olson's experience as a driver's education instructor.
 - E. Olson was familiar with the Minot Country Club driveway.
 - F. Olson had owned the vehicle long enough to be completely familiar with it.
 - G. Olson's history as a responsible person and non-drinker.

The plaintiff submits that, to the extent that Grinolds's opinions are based on the above-listed physical facts and observations, and given his qualifications and the methodology utilized, his opinion testimony should be permitted. The plaintiff asserts that Grinolds should be allowed to state his opinions, to a reasonable degree of certainty within the specialized field of accident reconstruction, that (1) the physical evidence, including the brake light filaments, the brake pedal position, the condition of the brake pedal pad, and the bent-back condition of the driver's seat indicate that Olson was probably engaging in hard-braking at or in the moments before the accident; (2) the physical evidence of the hard-braking is consistent with a driver's attempt to overcome an open-throttle condition; and (3) the physical evidence suggests that a mechanical defect was the most probable proximate cause of the collision.

The Court finds that Grinolds is qualified to render certain expert opinions in this case but he is not qualified to provide expert opinion testimony as to any specific design defects of the Ford Explorer.

The Court expressly finds that the offering of any expert opinion testimony from Grinolds about “phantom acceleration” from a defective speed control system, or any opinion testimony as to specific design defects of the 1998 Ford Explorer, is not reliable for purposes of Rule 702. Grinolds has no engineering background, he has no technical, specialized knowledge or qualifications that would be of assistance to the jury in the areas of automobile design defects, and he is not qualified to testify about design defects. Further, the plaintiff specifically noted that Grinolds would not be offering opinions concerning Ford’s speed control system or any design defects. See Docket No. 122-1, p. 2.

Nevertheless, Grinolds will be allowed to testify as to the factual observations he made as a result of his “investigation” into the accident. For example, Grinolds will be allowed to provide factual testimony relating to his investigation, i.e., the physical condition of vehicle post-accident, physical evidence observed from and within the vehicle; evidence from the road; and visual observations and photographs of the accident site, etc. Grinolds will also be allowed to present rebuttal testimony, if necessary, to the testimony of fact witnesses who may testify at trial concerning their personal observations of Olson’s alcohol consumption and his physical condition prior to the accident. The record reveals that Grinolds interviewed a number of employees of the Minot Country Club and other fact witnesses who personally observed Olson on the night of the accident. If the trial testimony of these fact witnesses differs from what they may have told Grinolds during the course of his investigation, Grinolds would be allowed to present rebuttal testimony to address such inconsistencies.

In addition, the Court finds that Grinolds’ proposed opinion testimony concerning Olson engaging in hard-braking in the moments before the accident, and his opinion that such physical

evidence may be consistent with a driver's attempt to overcome an open-throttle condition, satisfies the requirements of Rule 702 and Daubert. This type of opinion testimony would be of assistance to the trier of fact and Grinolds is qualified to render such opinions based upon his background, experience, and training.

As previously noted, Grinolds is prohibited from expressing any expert opinions at trial which relate to any design defects and this prohibition extends to any "mechanical defects" of the 1998 Ford Explorer. Any opinion that the physical evidence suggests that a "mechanical defect" was the proximate cause of the accident is an opinion that principally relates to the design of the speed control system and/or a design defect of the Ford Explorer. The plaintiff has acknowledged that Grinolds has no expertise in Ford's speed control system being defectively designed nor does the plaintiff intend to offer any opinions on that subject matter. To allow Grinolds to express expert opinions on alleged "mechanical defects" of the vehicle is essentially an attempt to directly or indirectly implicate the speed control system of the Ford Explorer through the backdoor. Grinolds' proposed expert testimony on this subject matter is unreliable for purposes of Rule 702 and Daubert. Such opinion testimony is based primarily on subjective beliefs or speculation as to the primary cause of the accident. Simply stated, Grinolds is not qualified to render expert opinions in this case on design defects of the 1998 Ford Explorer or on "mechanical defects" of the vehicle that may have contributed to cause this unfortunate accident. Any opinion offered by Grinolds that a "mechanical defect" was the cause of the accident is an indirect tactic to implicate a design defect of the speed control system – neither of which will be allowed.

B. TROOPER BRAD SMITH

Trooper Brad Smith is an officer with the North Dakota Highway Patrol who measured the tire marks at the scene of the accident and prepared a standard speed calculation. Smith calculated the vehicle speed to be 53 mph on the roadway to the Minot Country Club. Smith simply measured the tire marks and then used in a standard formula to calculate the speed of the vehicle prior to impact. It appears to be undisputed that Trooper Smith did not take into account the fact that the vehicle was sliding on grass and traversing a steep side slope to determine the speed of the vehicle on impact.

Ford Motor has acknowledged that Trooper Smith is qualified to conduct a basic speed calculation from tire marks left on a flat road. See Ford Motor Company's Motion in Limine to Exclude Evidence of Trooper Brad Smith's Speed Calculation, p. 5. However, Ford Motor contends that Smith does not have the necessary expertise to determine speed in this case because the vehicle was sliding down a steep hill on grass which is arguably a critical factor in determining the speed of the vehicle at the time of impact. Trooper Smith has acknowledged that he does not have the training to factor in slope and grass into his speed calculations.

On January 20, 2006, counsel for Olson submitted a response to the motion and stated that Trooper Smith will not be called as a witness (Docket No. 131). Therefore, Ford Motor's motion in limine is granted.

C. MARK HOFFMAN / CHARLES ADAMS

The plaintiff has moved in limine to exclude the opinions of Mark Hoffman and Charles Adams, both of who are long-term employees of Ford Motor Company and whose training is

principally in the field of engineering. Ford motion filed responsive pleadings on January 20, 2006 (Docket Nos. 112-113). Both of these expert witnesses have been involved in numerous cases for Ford Motor involving claims of product defects. The plaintiff essentially contends that these Ford “hired-guns” have approached their “detective work” in this case in a grossly negligent manner. With respect to Mark Hoffman, the plaintiff contends that Hoffman’s “detective work” does not befit a professional engineer. The plaintiff argues that it is inconceivable and inexcusable that an engineer such as Hoffman would not have taken the opportunity to look inside the cable housing and conduct a microscopic examination of the speed control cable system on the 1998 Ford Explorer to see what evidence existed to show that contaminant had caused the speed control cable (cruise control) to bind or jam.

The plaintiff has raised the same concerns with respect to Charles Adams. Adams has been a Ford Motor employee for thirty-four years and has testified as Ford’s representative in other speed control system cases. The plaintiff contends that Adams’ methodology and analysis “can only be characterized as woefully inadequate, if not downright negligent.” See Plaintiff’s Brief in Support of the Motion in Limine to Preclude Opinion Testimony From Ford Expert Charles Adams, p. 4.

With respect to Mark Hoffman and Charles Adams, the Court finds that both witnesses are qualified engineers by education, training, and experience and both have certain technical or specialized knowledge which would be of assistance to the jury relative to the speed control systems of the 1998 Ford Explorer. The proposed opinion testimony is relevant and reliable for purposes of Daubert and Rule 702. Each expert has provided a summary of his opinions and a detailed explanation as to the factual basis for the opinions. The appropriate means of attacking each

expert's opinions is through vigorous cross-examination and the presentation of contrary evidence rather than a wholesale exclusion of such testimony at trial.

D. SAM SERO

Sam Sero is a graduate of Carnegie Institute of Technology with a degree in electrical engineering. Sero touts himself as a "forensic engineer" and has apparently devoted an increasing amount of his forensic practice to cases involving claims of sudden acceleration against the automobile industry. Ford Motor contends that Sero had initially propounded a theory that sudden acceleration is caused by transient electrical signals invading the vehicle's cruise control system, engaging the cruise control, and causing the vehicle to take off while the driver tries in vain to stop the vehicle with the brakes. Ford Motor contends that as a result of that theory being soundly rejected, Sero's new theory is that sudden acceleration incidents are caused by dirt or debris jamming the cruise control actuator cable, i.e., the "debris theory." According to Ford Motor, Sero has ascribed to the theory that contaminate or material that may cause a sudden acceleration can come from anywhere, it cannot be identified, and it cannot be found after the incident. In this case, Ford Motor contends that Sero believes that as Richard Olson drove down the Minot Country Club drive way, his speed control cable suddenly became stuck due to either a piece that broke off the cable strand cover or other contaminants, and the cable then held the throttle open as the vehicle accelerated. It is Sero's opinion that Olson had a sudden acceleration or failure to decelerate based on three basic facts: (1) evidence that Olson was aggressively braking; (2) the existence of dirt and scratch marks inside the cable housing that Sero saw under microscopic examination with a

borescope; and 3) Sero's belief that there was a piece of plastic broken off the strand cover over the metal cable.

Ford Motor contends that in an attempt to bolster the "debris theory," Sero had an assistant in his office conduct experiments by trying to make cables stick by cramming them full of dirt and hobby railroad sand. Ford Motor contends that a videotape of the experiments will be provided to the Court for viewing. Sero did not conduct the experiments himself, nor was he present for much of the testing. Sero has no documentation of the experiments other than the videotape. Apparently, the video reveals an assistant holding a cable vertically in hand and placing various materials or contaminants into the cable with their fingers while working the cable in and out to push the materials in. Apparently, the assistant depicted in the video was able to get enough foreign material into the speed control cable system to make it stick. Ford Motor contends that the assistant depicted in the video collected grease and dirt from vehicles in salvage yards to conduct the experiments. The video shows the assistant scooping black material that looks like mud out of a jar. Sero made no record of this collected material, nor is there any verification that the material was similar to what Sero claims was found in the speed control cable of the 1998 Ford Explorer driven by Olson. Ford Motor also contends that the experiments conducted by Sero's assistant were not done in accordance with any established scientific protocol, nor do the experiments tend to prove that dirt or debris can cause a speed control cable to stick when installed in a vehicle and used under real world conditions.

Sero has prepared an affidavit (Docket No. 105) which addresses the issues raised in Ford's motion. Pertinent portions of Sero's affidavit are as follows:

2. Regarding Ford's assertion at Page 3 of its motion that I have changed any of my theories or beliefs, such assertion is false. What I have done, pursuant to my investigation of numerous sudden acceleration/failure-of-speed-control-to-disengage cases, is state and show that Ford has found new ways to make the throttle stay open.

I have not changed any of my theories or beliefs; rather, I have shown how Ford has designed in a new failure mode.

3. While purportedly “investigating” the causes of sudden, unintended acceleration of motor vehicles, the National Highway Traffic Safety Administration (NHTSA) never contacted me to discuss any of my theories, investigations, findings and conclusions. The 1989 NHTSA study was anything but extensive and relied on old material not even germane to the vehicles at issue. The second NHTSA report used this 1989 report to attempt to justify its earlier conclusions, even though the evidence clearly showed that such conclusions were incorrect. Everything in the second NHTSA report is either a half truth or totally wrong.
4. My “theory” of electromagnetic interference (EMI) as a cause of sudden acceleration incidents has not been rejected in the engineering community; to the contrary, Ford admits to potential EMI failure modes in its own Failure Mode and Effects Analyses and EMC document; the Center for Auto Safety has petitioned NHTSA to reopen a sudden acceleration study based on EMI for drive-by-wire vehicles; and EMI is a known problem related to electronics use in all industries.
5. Cable binding is a known auto industry problem, as is shown on the face of Ford's own FMEA and in the testimony of Ford's own engineers. Cable binding is also a known problem in all industries using any form of cable pull or servo operation. The concepts of binding and frictional fit are basic physics and do not require any additional proof of their consequences or existence. The physical principles of friction and the wedge are age-old concepts that are fundamentally accepted within the engineering community.
6. Scratch marks in the cable conduit and on the plastic cable cover of the Olson Explorer are proof that some material harder than the plastic was between the two plastics and that such material was dragging (frictional) and gouging (wedging) itself into these pieces.
7. The “experiments” to which Ford refers in its motion were for demonstrative purposes only, to show how debris and small particulate matter can cause binding and to illustrate the scientific principles involved in the operation of the actuator cable. They were not intended to duplicate the conditions of the Olson event and are not performed or offered for that purpose.
8. Based upon my examination of hundreds of Ford documents and the testimony of certain Ford engineers, Ford does not conduct any road tests or lab tests of the effects of particulate or contaminant intrusion into the speed control actuator cables employed in its vehicles. Had such testing been done,

Ford would not have had to perform the testing on water intrusion, the design of a nipple wipe for the cable, or for the effects of the breaking of the plastic end of the cable cover after the vehicle was on the road and in use by consumers. Ford failed to carry out such testing despite the company's FMEA that states that contamination can cause the cable to stick.

9. Regarding my methodology, I employed standard engineering methodology in investigating the cause of the Olson accident. I examined and considered all available physical evidence from the vehicle and accident scene; Ford's own documentation, including, but not limited to, design documents relating to the speed control cables and brakes; the testimony of Ford engineers; customer reports of other substantially similar incidents implicating the design of its speed control actuator cable in failure-to-disengage incidents where the throttle remained open; and I applied my education, training and experience as an engineer in analyzing the possible causes and effects revealed by the evidence. I utilized the borescope to examine the speed control actuator cable and the space between its plastic cover and the sheath through which it passes to see if there was evidence that the plastic cable cover had carried particulate matter, grease and/or other contamination into the sheath in quantities sufficient to cause cable binding. I also used the borescope to determine whether there were physical scratch marks on the cable and the inner surface of the sheath indicating that some material harder than the plastic had become wedged between the two plastics and that such material was dragging (frictional) and gouging (wedging) itself into these pieces. The theory of contaminant is proved by the borescope evidence and physical presence of contaminant, and my findings are reflected in the report I have filed in this case and in my deposition testimony.
10. Within the engineering community, it is commonly accepted and understood that "peer review" and "publication" are not necessary to the application of basic physics.
11. Within the engineering community, it is commonly accepted and understood that "rate of error" pertains to a test or experiment, not to basic physics or demonstrations of fundamental physical principles.
12. Ford's own documents and the testimony of Ford's own engineers agree that their cables can stick, and every engineer and scientist in the world would, in my opinion, agree that binding occurs from friction and wedging effects.

The plaintiff submits that Sero's affidavit addresses each of Ford's points of attack. The plaintiff claims that the extensive investigation conducted by Sero stands in sharp contrast to the

alleged “detective work” described by Ford Motor experts (Adams and Hoffman) “who came to Minot to look at the Olson vehicle, but, quite incredibly, failed or refused to make any attempt to look inside the actuator cable housing to see if, indeed, the contaminants contemplated by Ford’s Failure Mode and Effects Analysis.” See Plaintiff Diana Olson’s Memorandum In Opposition to Defendant Ford’s Motion in Limine No. 4 to Exclude Expert Testimony of Sam Sero, p. 4 (Docket No. 104). The plaintiff argues that the experts retained by Ford Motor failed to do this despite Ford’s knowledge that (1) the plaintiff was alleging that the actuator cable had stuck or jammed due to dirt, grease or other contaminants; (2) Sero found physical evidence inside the cable sheath that such dirt, grease and other contaminants were present; (3) Sero had found evidence of friction and wedging on the cable cover indicative of binding or jamming; (4) Ford’s FMEA had acknowledged that, when such contamination was present, there was the potential for a stuck cable during an open throttle condition; and (5) there was physical evidence of hard braking by Olson, consistent with trying to regain control of the vehicle against an open throttle, which physical evidence included, *inter alia*, a bent brake pedal, a distorted rubber foot pad which had been torn from the brake pedal, brake lamp filament evidence, and the bent-back condition of Olson’s seatback, consistent with a driver’s “standing on the brakes” and pressing his shoulders against the seatback.

With respect to the experiments conducted by Sero, the plaintiff states that the purposes for which Sero conducted and documented the demonstrations as to which Ford objects are as follows:

7. The “experiments” to which Ford refers in its motion were for demonstrative purposes only, to show how debris and small particulate matter can cause binding and to illustrate the scientific principles involved in the operation of the actuator cable. They were not intended to duplicate the conditions of the Olson event and are not performed or offered for that purpose. (Docket No. 104)

The plaintiff contends that under Rule 702, such demonstrations by an expert are contemplated where they reflect the specialized knowledge of the expert and will assist the trier of fact, and where (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the case. The plaintiff contends that Sero chose these demonstrations to illustrate the physical principle that, when some material harder than plastic becomes wedged between two plastic surfaces and such material is dragging (frictional) and gouging (wedging) itself into these interfacing pieces, binding or sticking can occur.

With respect to the experimental techniques undertaken in this case, the Court finds that the experiments conducted by Sero were not intended to replicate the condition of the accident. The experiments were conducted solely for demonstrative purposes to show how debris and other contaminants can potentially cause binding and to illustrate the scientific principles involved in the operation of the acutator cable. Sero's experiments or demonstrations will be allowed at trial solely for such purposes as outlined above and, with such limitations, are relevant and reliable under Rule 702.

With respect to Sero's expert opinions, the Court believes that Sero has the experience, background, training, and education necessary to testify as to the causes of this accident. Sero is qualified to assist the jury about the ultimate issues of fact. The Court finds that Sero's opinions are reliable and relevant for purposes of Rule 702. The proper means of attacking such evidence is through vigorous cross-examination and the presentation of contrary evidence. The Court will not invade the province of the jury whose job it is to decide issues of credibility and determine the weight to be accorded such evidence. The United States Supreme Court emphasized in Daubert, 509

U.S. at 595, 596 that "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."

In summary, the opinions of James Grinolds, Sam Sero, Charles Adams, and Mark Hoffman will be admissible at trial subject to the limitations and restrictions as outlined above. The appropriate means of attacking each expert's opinions is through cross-examination and the presentation of contrary evidence. The Court's gatekeeper role should not invade the province of the jury whose job it is to decide issues of credibility and to determine the weight to be accorded such evidence. The Court will exercise its discretion and will refrain from a wholesale rejection of the expert testimony to be offered at trial.

The Court **DENIES** the Defendants' Motions in Limine as to experts James Grinolds and Sam Sero (Docket Nos. 74 and 76) subject to the limitations and restrictions outlined above as to Grinolds and subject to the limited offer of the demonstrative experiments conducted under the direction of Sam Sero. The Court **DENIES** the Plaintiff's Motions in Limine as to experts Hoffman and Adams (Docket Nos. 94 and 95). The Court **GRANTS** the Defendant's Motion in Limine as to Trooper Brad Smith (Docket No. 81).

IT IS SO ORDERED.

Dated this 25th day of January, 2006.



Daniel L. Hovland, Chief Judge
United States District Court